

PROGRAM OF WORK

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
Division of Forest Insect Investigations

Station: Ogden, Utah

Period: Calendar Year 1953

Station Leader: L. W. Orr

WORK PROJECT I-c-1

Investigations of Tree-killing Bark Beetles and Their Control.

WORK PROJECT I-c-9

Surveys and Control of Forest Insects.

Forest Insect Laboratory
Forest Service Building
Ogden, Utah
March 5, 1953

WORK PROJECT I-c-1

INVESTIGATIONS OF TREE KILLING BARK BEETLES AND THEIR CONTROL

Line Project I-c-1 (New). Studies of the causes of tree mortality following selective logging in ponderosa pine stands.

Status of Current Work:

The Intermountain Forest and Range Experiment Station is beginning a new study of methods of selective cutting of ponderosa pine at the Boise Basin Research Center. Preliminary arrangements have been made for us to cooperate with the Station and with the Division of Forest Pathology of FISAE in a study of all tree mortality that occurs on sample compartments that will be subjected to various methods of selective logging.

Justification and Objectives:

Residual stands of ponderosa pine on selectively logged areas in southern Idaho have suffered a considerable amount of loss caused by bark beetles and other factors. On some of the study plots at the Boise Basin Research Center the loss has exceeded growth, with the result that there has been a net loss in volume since the plots were logged some 20 years ago. Most of this loss has been attributed to bark beetles. This situation appears to be rather general in southern Idaho and is therefore very important to the successful management of ponderosa pine. It is believed that studies of insects and diseases on a series of plots subjected to several methods of cutting will help to explain the reasons for stand deterioration and make it possible to develop management methods that will reduce losses and increase net growth in reserve stands.

Plans for 1953:

An inventory will be made of all dying and recently killed trees on the Boise Basin Research Center plots and the cause of death of each will be determined insofar as possible. This will be done annually over a period of ten years or more. A series of numbered trees representing various degrees of risk or current health will be selected and examined each year. These will include some that are infected by the needle cast disease, Elytroderma deformans. Changes in their condition will be recorded. Studies will also be made of insect infested trees on other selectively logged areas where conditions may be somewhat different than on the Experimental Forest.

Assignment: L. W. Orr, R. I. Washburn and temporary field assistants.

Cooperators: U. S. Forest Service
Intermountain Forest and Range Experiment Station
Boise National Forest
Payette National Forest

Boise-Payette Lumber Co.

WORK PROJECT I-c-9

SURVEYS AND CONTROL OF FOREST INSECTS

Line Project : Forest insect surveys.

Status of Current Work:

Forest insect surveys in the Intermountain Region are conducted by personnel of the Ogden Forest Insect Laboratory and are supplemented by observations and reports made by many cooperators. This has resulted in fairly accurate information regarding the current status of some of our more important pests but we are still far from our objective of obtaining such information for all pests throughout the region. First attention is given to those problems and areas where we believe there is the most justification for attempting control work.

Justification and Objectives:

Early detection followed by accurate appraisal of all insect infestations is basic to successful planning of direct control operations.

Plans for 1953:

It is hoped that personnel and funds can be obtained for conducting appraisal surveys of the extensive Douglas-fir beetle and spruce budworm infestations in southern Idaho, especially on the Payette, Boise, and Salmon National Forests. Timber owners and managers in the area are very much worried about these infestations. These problems will be given special attention during the coming season.

An appraisal survey of the Black Hills beetle infestation on the Dixie National Forest and Bryce Canyon National Park in southern Utah will be conducted next September. This will be necessary as a means of determining the degree of success attained by control work to be conducted by the Forest Service and Park Service this coming spring.

We would like to conduct an appraisal survey on the Ashley and Wasatch National Forests in eastern Utah to determine the amount of mountain pine beetle infestation in lodgepole pine stands on these Forests. However, its chief value would be to enable us to continue our record of the trend of the infestation. It is therefore probable that we will need to use all our manpower and money in southern Idaho where the current problems are more urgent.

Reconnaissance surveys will be conducted in areas where they seem to be most important, on the basis of detection reports received from cooperators or our own personnel.

Training schools will be held for personnel from the federal and state land managing agencies and private land owners or timber operators. Instruction will be given in the recognition of major forest insect pests, signs of increasing infestations, and reporting procedures. An attempt will also be made to take advantage of every possible opportunity for personal contacts with field men of the various agencies and operators. We would like to spend a few hours in the field with every ranger and assistant ranger in the Region but this will take several years because current insect problems force us to spend a large part of our time within a relatively small part of the Region.

Assignment: L. W. Orr, R. I. Washburn and temporary employees.

Cooperators: U. S. Forest Service
National Park Service
Idaho State Forest Service
Southern Idaho Forestry Association
Boise-Payette Lumber Company

Line Project: Technical assistance on control projects.

Status of Current Work:

This will be the third season of work by the Forest Service to control the Black Hills beetle in ponderosa pine on the Dixie National Forest. The infestation has been very aggressive and has spread into additional area each year although the total number of infested trees has been reduced below the number treated the first year, 1951. On the Boise Forest in Idaho, an outbreak of the western pine beetle and the mountain pine beetle in ponderosa pine has been checked by two seasons of treating work and it is believed that a logging operation, which is to begin in 1953, will prevent additional serious loss by removing any trees that are infested or that are especially susceptible to attack. Airplane spraying to control the fir needle miner in white fir at Bryce Canyon National Park was reasonably effective in 1952 and may need to be repeated in 1953. Extensive and severe infestations by the spruce budworm and Douglas-fir beetle in southern Idaho are causing timber owners and managers much worry and may require the application of direct control measures within the next year or two. Laboratory personnel work very closely with all control crews by suggesting the methods to be used, training the men, checking on thoroughness of work that is done, and determining the effectiveness of the control job.

Justification and Objectives:

Close technical cooperation on all control operations is essential to insure effective and economical use of control funds. It also provides opportunity for observing practical application of new control methods and for testing modifications of such methods.

Plans for 1953:

All control work will be given technical supervision insofar as is possible with our limited personnel. Special attention will be devoted to the Dixie-Bryce Canyon job, especially to make certain that all infested areas are included in the treating program. This will require a lot of scouting on the ground and probably some aerial reconnaissance work after the infested trees fade late in June or early in July. A small job for control of the southwestern pine beetle in ponderosa pine on Charleston Mt. in Nevada will require close supervision because the local forest personnel have not had experience in treating bark beetle infested trees with penetrating toxic oils. Assistance will be given in marking ponderosa pine timber on the Boise Forest where an attempt will be made to remove all beetle infested trees and trees that are susceptible to beetle attack, especially in the Deadwood area where direct control work was done in 1951 and 1952.

Assistance will be given the National Park Service if our spring examination indicates the need for airplane spraying to control the fir needle miner at Bryce Canyon National Park.

Assignment: L. W. Orr, R. I. Washburn and temporary employees.

Cooperators: U. S. Forest Service
National Park Service
Idaho State Forest Service
Boise-Payette Lumber Co.